

ELECTRONIC TUBE REFERENCE

6L6GC

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

High-rating 6L6-family beam-power audio tube with approximately 30 W plate dissipation and 500 V capability for powerful hi-fi and musical-instrument output stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7AC	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7AC - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	–	–	NC · verified
PIN2 – Pin 2	–	H – Heater	CONNECTED · verified
PIN3 – Pin 3	A	P – Plate (Anode)	CONNECTED · verified
PIN4 – Pin 4	A	G2 – Screen Grid	CONNECTED · verified
PIN5 – Pin 5	A	G1 – Control Grid	CONNECTED · verified
PIN7 – Pin 7	–	H – Heater	CONNECTED · verified
PIN8 – Pin 8	A	BP – Beam-Forming Plate	CONNECTED · verified
PIN8 – Pin 8	A	K – Cathode	CONNECTED · verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	22500 Ω
TRANSCONDUCTANCE	0.006 S
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM SCREEN VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	30 W
MAXIMUM SCREEN DISSIPATION	5 W
MAXIMUM CATHODE CURRENT	150 mA
Section values promoted from published characteristics and maximum ratings.	

High-power 6L6-family output tube intended for audio-frequency power amplification.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1961 TUNG SOL

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	900 mA	—
Plate voltage	450500 V	Typical operating conditions
Plate current	40 mA	Typical operating conditions

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 3 of 4

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1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	33000 ohm	PromotedValue
Transconductance	0.0047 A/V	PromotedValue
6.3 VOLTS – published value 1	6.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
6.3 VOLTS – published value 2	0.9 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE – published value 1	6.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER VOLTAGE – published value 2	6.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	500 V	PromotedValue
Maximum screen voltage	450 V	PromotedValue
Maximum plate dissipation	30 W	PromotedValue
Maximum screen dissipation	5 W	PromotedValue
Maximum cathode current	210 mA	PromotedValue
MAXIMUM PLATE VOLTAGE – published value 1	450 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM PLATE VOLTAGE – published value 2	500 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.



SOURCE OPERATING CONDITIONS

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1968 General Electric Co

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1968 GENERAL ELECTRIC CO

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	500 V	—
Maximum Screen Voltage	450 V	—
Maximum Plate Dissipation	30 W	—
Maximum Screen Dissipation	5 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	22500 ohm	—
Transconductance	6000 uS	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1968 Mazda Belvu

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1968 MAZDA BELVU

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage sceerraeererereencenençennenensnannnnnee VÊ	6.3 V	—
Heater current If	900 mA	—
Capacitance grille n° 1/ anode	0.6 pF	—
Capacitance d'entrée se	10 pF	—
sous sove 00	6.5 pF	—
ce secsanecemesssrensecccmes VA	500 V	—
Screen-grid voltage (1) Ve,	450 V	—
Screen-grid dissipation ... Peg	5 W	—
Tension entre filament et cathode eorewre VfK	200 V	—
Tension' d'AN0dE ersesrsesrevorcesss cec V3 250 300	300 V	—
Screen-grid voltage , . Ve, 250 200	250 V	—
Tension de grille n° 1 Vg, -14 -12,5	-18 V	—
Tension d'entrée AF., valeur de cretp Vecr 14 12,5	18 V	—

SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 5 of 7

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	900 mA	—
Voltage (AC or DC)	6.3 %	Published source row
Voltage (AC or DC) (value 2)	10 %	Published source row
Current at	6.3 V	Published source row
Current at (value 2)	0.9 V	Published source row

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid No	2 pF	Published source row
grid No (value 2)	10 pF	Published source row
grid No	2	Published source row
grid No (value 2)	6.5	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	250 V	Published source row

1975 RCA RC30

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1975 RCA RC30

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Nominal
Heater Current	900 mA	Nominal
Peak Heater-Cathode Voltage	200 V	—
Plate Voltage	250 V	ClassA;PlateVoltage=250V
Screen Voltage	250 V	ClassA;PlateVoltage=250V
Control Grid Voltage	-14 V	ClassA;PlateVoltage=250V
Zero-Signal Plate Current	72 mA	ClassA;PlateVoltage=250V
Zero-Signal Screen Current	5 mA	ClassA;PlateVoltage=250V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-Plate Capacitance	0.6 pF	—
Grid No.1 Input Capacitance	10 pF	—
Plate Output Capacitance	6.5 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	22500 ohm	ClassA;PlateVoltage=250V
Transconductance	6000 uS	ClassA;PlateVoltage=250V



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

199X JJ

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199X JJ

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	250 V	—
Typical Screen Voltage	250 V	—
TypicalControlGridVoltage	-14 V	—
Typical Plate Current	72 mA	—
Typical Screen Current	5 mA	—
LoadResistanceSingle	22500 ohm	ClassA1;OneTube
PowerOutputSingle	6.5 W	ClassA1;OneTube
PlateToPlateLoadResistance	5000 ohm	PushPull;ClassA1;TwoTubes
PowerOutputPushPull	17.5 W	PushPull;ClassA1;TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridCapacitance	12.5 pF	—
Plate Capacitance	10 pF	—
PlateGridCapacitance	1.5 pF	—



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

199X Svetlana

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199X SVETLANA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (AC or DC) 5.7 6.3	6.9 V	SourcePage1-2
Heater Current @	6.3 V	SourcePage1-2
Cathode-to-heater potential ±	200 V	SourcePage1-2
Grid no. 1 to plate	0.6 pF	SourcePage1-2
Grid no. 1 to cathode, heater, grid no. 2, and beam forming plates	10 pF	SourcePage1-2
Plate to cathode, heater, grid no. 2, and beam forming plates	6.5 pF	SourcePage1-2

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC plate voltage VP	500 V	SourcePage1-2
Screen grid voltage Vg2	500 V	SourcePage1-2
Plate Dissipation	30 W	SourcePage1-2
Screen Grid Dissipation	5 W	SourcePage1-2
DC plate voltage 350	250 V	TypicalOperation
Screen grid voltage	250 V	TypicalOperation
Control grid bias voltage -18	-20 V	TypicalOperation
Peak AF grid voltage 18	20 V	TypicalOperation



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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2026 JJ Electronic

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2026 JJ ELECTRONIC

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Uf	6.3 V	Published value
If	900 mA	Published value
Ua	250	Published value
Ug2	250	Published value
Ug1	-14	Published value
Ia	72	Published value
Ra	22.5	Published value
N	6.5	Published value
Triode Pentode cg1	12.5 pF	Published value
Ua	450	Published value
Ug2	450	Published value
Wa	30	Published value

TUBE TINKER

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